Work Ord Thursday, Febra		4 <b>94</b> 12:53:59 PM		*97494*								
tem ID: Revision ID:	D4093-5			Accept	*N900	040	100	<b>)</b> *	Setup Sta	I	S1*	
tem Name:	Bracket								Sto	<sup>p</sup> *N	S2*	
Start Date: Required Date:	2/25/2013 : 2/25/2013	Start Qty: 12.00 Req'd Qty: 12.00	1 /		Cust Item I Customer:	ID:						
Reference:	Process Pla	an:	Date: <u>13-62-2/</u>	Tooling: SPC (Y/N):		ate:		1	Run Sta	"  \	R1*	
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp.	
Draw Nbr	Rev	vision Nbr			-				· · · · · · · · · · · · · · · · · · ·			on may
D4093	D	i										
00				0.00							DAS	_
*100* Waterjet FLOW CNC Water	rjet	<b>Memo</b> CUT AS DWG RE PROG R		0.00				12			<b>05</b> <b>2-8</b> 13.	· 33 · 10
		DEBURE	₹									
*110*		QC2- Inspect parts of	f machine FAI/FAIB	0.00				12			OAS 05 9-59	
QC		Memo		0.00				19				3 03.1

Quality Control

NICD.	V /	
NCR:	Yes /	No

DQA: \_\_\_\_\_ Date: \_\_\_\_

NCR: Y	es / No				WORK ORDER NON-C	CONFOR	MANCE / UP	DATE							
							QA Closed: Date:								
Work Orde	ır:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS					
					Rework		Skid-tube	Crosstube		Water Jet	Engineering				
Part N	lo.				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality				
	<del></del>				Use-as-is	Ther	moforming	Finishing	Rec/Stoi	e/Packaging	Other				
NCR N	lo			<del></del>	Work Order Update		Large Fab	Composite		Supplier					
Root		Τ		Descri	ption of work order update	Initial	Ac	tion	Sign &						
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector				
Doc/Data															
Equip/Tooling															
Operator															
Material	_														
Setup															
Other															
Process	4 4														
Supplier											1				
Training															
Unapproved						<u> </u>				<u> </u>					
						AULT CATI	GORY								
Landi	ng Gear				General				7	_	¬				
	Bending			<u> </u>	Bend	Grain		<u></u>	Ovalized	<u> </u>	Pressure/Forced				
		Not Conce	ntric to	o/s	BOM/Route	Hardw			Over/Under	<b>⊢</b>	Temperature/Cure				
	Cracks				Broken/Damaged	$\mathbf{H}$	tion Incomplete		Part Incorre	<b>⊢</b>	Weld				
	Crushed/Crimped. Burrs					<del></del>	tions Incomplete/	'Unclear	Part Lost/M	issing	Wrong Stock Pulled				
	Cuffs Contamination						enance		Part Moved						
	Heat Treat Countersink						eled	<u> </u>	Positioned \						
	Inspection Strip in Tube Cut Too Short					Misrea			Power Loss/	'Surge	Other				
	Ripples in Bend Drill Holes					Offset									
	Torque Waves in Extrusion Drawing					<b>—</b>	Calibration								
	Turning Sequence Finish					Out of Sequence									
	Wave/T	wist in Tul	be		Folio	Outsid	e Dimensions								

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde Thursday, Febru				*97	494*					Page 2
Item ID: Revision ID:	D4093-5			Accept	*N9000401	100*	Setup		*N.	S1*
Item Name:	Bracket							Stop	*NS	<b>S2*</b>
Start Date: Required Date: Reference:	2/25/2013 : 2/25/2013	Start Qty: 12.00 Req'd Qty: 12.00	*1: *1:		Cust Item ID: Customer:					
Approvals:	Process Pla	an:	Date:	Tooling:	Date:		Run	Start	*NF	₹1*
					Date:			Stop	*NF	₹2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID Tool#	Plan Acce Code Qty	pt Rejo Qty		Reject Number	Insp. Stamp
120		QC8- Inspect parts - secon	nd check	0.00	40	10				
*120* QC Quality Control		Мето		0.00 3	7 6 3. 13.	19		·		
130				0.00						01
*130* Small Fab		Memo	÷	0.00		12	<u>X</u>			D3/8
Small Fab		C' SINK AS	PER DWG							′ ′ /
140		QC5- Inspect part comple	eteness to step on W	/O 0.00						DAS
*14 <b>0</b> *		Memo		0.00		(2)	) 13-0	<u>53√1,</u>	>	045 09 

Quality Control

DQA: Date:

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

	,									QA Closed:	Date	::
Work Order	••				DISPOSITION				AGAINST DE	PARTMENT	PROCESS <sub></sub>	
Part No			1. 14.		Rework Scrap		1	Skid-tube Machining	Crosstube Small Fab	ŧ	Water Jet d. Eng. Coor.	Engineering Quality
NCR No	D	······································			Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
Root				Descri	ption of work order update	In	itial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chie	ef Eng	Desc	ription	Date	Verification	QC Inspector
Ooc/Data  Iquip/Tooling Operator Material Setup Other Process Supplier Fraining Jnapproved												
mapproved		<u> </u>	L			<u> </u> :Δ111 T	CATE	SORV		<u>i</u>	<u> </u>	
Landing	Gear	i			General	7011	CAIL	00111				
	Bending Centre No	ot Concer	ntric to	o/s	Bend BOM/Route Broken/Damaged		Grain Tardwa nspecti	re on Incomplete		Ovalized Over/Under Part Incorre	<b>⊢</b>	Pressure/Forced Temperature/Cure Weld
	Crushed/Crimped Burrs Cuffs Contamination C Heat Treat Countersink							ions Incomplete/ nance	/Unclear	Part Lost/Mi Part Moved Positioned V	_	Wrong Stock Pulled
• 1	Inspection Strip in Tube  Cut Too Short  Drill Holes						Misread Offset	i		Power Loss/		Other ,
	Torque Waves in Extrusion Drawing							Calibration				
-	Turning Sequence Finish Wave/Twist in Tube Folio					Out of Sequence Outside Dimensions						

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 97494 \*97494\* Page 3 Thursday, February 21, 2013 12:53:59 PM D4093-5 Accept \*N900040100\* Setup Start Item ID: **Revision ID:** Item Name: Bracket 2/25/2013 **Start Qty: 12.00 Start Date: Cust Item ID:** Req'd Qty: 12.00 Required Date: 2/25/2013 **Customer:** Reference: Run Date: **Tooling:** Date: \_\_\_\_\_ Process Plan: Approvals: Date: SPC (Y/N): Date: Reject **Tool ID** Tool # Plan Accept Reject Sequence ID/ Operation Set Up/ Insp. Qty Number **Work Center ID Description Run Hours** Code Qty Stamp 150 Chemical Conversion Coat per QSI005 4.1 0.00 \*150\* HandFinish 0.00 Memo Hand Finishing QC7-Inspect Chemical Conversion Coat 0.00 160 12 13-03-14 09 \*160\* QC 0.00 Memo Quality Control Identify as per dwg & Stock Location: 180 \*120\* Packaging 0.00 Memo

Packaging

		DQA:	Date:	
ICR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			

											QA Closed:	Date	•		
Work Orde	er:					DISPOSITION			_	AGAINST DE	PARTMENT/PROCESS				
Part N	•					Rework Scrap Use-as-is Work Order Update			Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root	_				Descri	ption of work order update	<u> </u>	nitial	Δα	tion	Sign &				
Cause		Date	Step	Qty		or Non-conformance		ief Eng	i	cription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator															
Material							Ì								
Setup															
Other				}											
Process															
Supplier	Ш														
Training															
Unapproved				<u></u>											
							AUL.	T CATE	GORY						
Landi		1				General	_			_	1	_			
	-	Bending				Bend		Grain			Ovalized		Pressure/Forced		
	-	Centre No	ot Concer	ntric to	o/s	BOM/Route	-	Hardwa			Over/Under	<del>}</del>	Temperature/Cure		
	⊢	Cracks				Broken/Damaged	$\vdash$	•	ion Incomplete	_	Part Incorre	<u> </u>	Weld		
	$\vdash$	Crushed/Crimped. Burrs				1	$\vdash$		ions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
	$\vdash$	Cuffs				-	$\vdash$	Mainte		_	Part Moved				
	Heat Treat Countersink				-	$\vdash$	Mislabe			Positioned V		<b>-</b> .			
	Inspection Strip in Tube Cut Too Short						Misread	d		Power Loss/	Surge	Other			
	Ripples in Bend Drill Holes					$\vdash$	Offset	- 4.4							
	$\square$	Torque W			<sup>1</sup>	Drawing	$\boldsymbol{\vdash}$		Calibration						
	Turning Sequence					Finish	Out of Sequence								
	Wave/Twist in Tube				1	Folio	1	Outside	Dimensions			-			

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde Thursday, Febru					Page 4							
Item ID: Revision ID: Item Name:	D4093-5 Bracket			Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	I W	S1* S2*
Start Date: Required Date: Reference:	2/25/2013 2/25/2013	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:						
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):	Da		Run	Start Stop	*N *N	R1* R2*		
Sequence ID/ Work Center II 190 *190* QC	)	Operation Description QC21- Final Inspection -	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Re Qt	_	Reject Number	Insp. Stamp

pl13-03-14

NCR: Yes / No	WORK ORDER NON-CONF	FORMANCE / UPDATE
		QA Closed:
Work Order:	DISPOSITION	AGAINST DEPARTMENT
Work Order.	Rework	Skid-tube Crosstube

Work Order Update

Description of work order update

or Non-conformance

General

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

Broken/Damaged

Scrap

Use-as-is

Machining

Large Fab

Action

Description

Thermoforming

Initial

Chief Eng

**FAULT CATEGORY** 

Grain

Hardware

Maintenance

Out of Calibration
Out of Sequence

Outside Dimensions

Mislabeled

Misread Offset

Inspection Incomplete

Instructions Incomplete/Unclear

	DQA:	Date:	• • •
ATE	QA Closed:	Date:	
AGAINST DE	PARTMENT	PROCESS	
Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
on otion	Sign & Date	Verification	QC Inspector
·			
nclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Part No.

Date

Qty

Step

Centre Not Concentric to O/S

NCR No.

**Landing Gear** 

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Root

Cause

Doc/Data
Equip/Tooling
Operator
Material
Setup
Other
Process
Supplier
Training
Unapproved

**Picklist Print** 

Thursday, February 21, 2013 12:53:58 PM

Work Order ID:

97494

Parent Item:

D4093-5

Parent Item Name:

Bracket

Start Date: 2/25/2013

Required Date: 2/25/2013

Page 1

**Start Qty: 12.00** 

Required Qty: 12.00

**Comments:** 

IPP REV:A NEW ISSUE 10-10-01 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.188 6061-T6 .188 Sheet		Purchased	No			100	sf	60.6000	0.025	0.3157896	W	13.03	. 10
				Location		Loc Qty	<u>Lo</u>	c Code					

MAT021

124572

60.6 60.6 Loc Code

												DQA:	Date		
NCR:	Yes	/ No				WORK ORDER NON-CONFORMANCE / UPDATE									
		,							•		QA C	losed:	Date	•	
Work Ord	or.					DISPOSITION				AGAINST D	EPART	MENT	PROCESS		
i vvoik Ola	٠١٠ -					Rework	٦		Skid-tube	Crosstube	7		Water Jet	Engineering	
Part i	Vo.					Scrap	1		Machining	Small Fab	1	Prod	d. Eng. Coor.	Quality	
	•					Use-as-is		Therm	noforming	Finishing	Rec/Store/Packaging			Other	
NCR I	۷o.					Work Order Update	]		Large Fab	Composite			Supplier		
						ption of work order update Initial Act					T 6:			-	
Root		i _	_		l .	,	1				1 -	gn &	.,		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription	1 D	ate	Verification	QC Inspector	
Doc/Data	Щ										1				
Equip/Tooling	Ш							İ						Ì	
Operator	Ш														
Material	Ш														
Setup	Ш						İ								
Other	Ш														
Process								'							
Supplier	Ш										1		i		
Training										,					
Unapproved							$oldsymbol{ol}}}}}}}}}}}}}}}}}}$								
						F	AUI	T CATE	GORY						
Landi	ng (	Gear			_	General	_	-		_	_		_	_	
		Bending				Bend		Grain			Oval	ized		Pressure/Forced	
	Centre Not Concentric to O/S BOM/Route						L	Hardwa	re	L	Over	/Under	tolerance	Temperature/Cure	
	Cracks Broken/Dama							Inspecti	on Incomplete		Part	Incorre	ct	Weld	
	Crushed/Crimped. Burrs							Instruct	ions Incomplete,	/Unclear	Part	Lost/Mi	ssing	Wrong Stock Pulled	
	Cuffs Contamina					Contamination		Mainte	nance		Part	Moved			
	$\Box$	Heat Trea	ıt			Countersink		Mislabe	eled		Positioned Wrong				
	Inspection Strip in Tube					Cut Too Short		Misread				er Loss/	Surge	Other	

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

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DART AEROSPACE LTD	Work Order:	91494		
Description: Bracket	Part Number:	D4093-5		
Inspection Dwg: D4093 Rev: B		Page 1 of 1		

# FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.201	+0.005/-0.001	0.203			Ver Ver ver	MA-01
0.38	+/-0.030	0.381	V		ven	
0.75	+/-0.030	0.753	V		New	
4.64	+/-0.030	4.644	~		new	
3.889	+/-0.010	3.883	1		ver	
0.188	+/-0.010	0.185	/		vers Vers	
		1				
			<b>∂</b> A.			

Measured by: what	Audited by: 27	Preliminary Approval:
Date: /3.03.10	Date: /3 3 /2	Date:

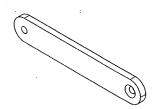
Rev	Date	Change	Revised b	у	Approved
Α	10.10.07	New Issue	KJ	Δ	1
В	11.07.26	Dwg Rev updated	KJ <sup>q</sup>		<b>\</b> \\\
				TT	

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
	•									QA Closed:	Date:	
Work Orde	rder:								DEPARTMENT/PROCESS			
Part N	Part No Scrap						ı	Skid-tube Crosstube Small Fab			Water Jet	Engineering Quality
NCR N	o				Use-as-is Work Order Update	Thermoforming Finishing Rec/Store/Packaging Supplier					Other	
Root				Descr	iption of work order update	Ti	nitial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
oc/Data												
quip/Tooling											•	
perator											•	
1aterial												
etup												
ther												
rocess												
upplier												
raining												
Inapproved	7											
					F	AUI	T CATE	GORY				
Landin	g Gear				General		_			_		· .
	Bendin	3			Bend		Grain			Ovalized		Pressure/Forced
	Centre	Not Conce	ntric to	o/s	BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure	
Ī	Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorrect		Weld
Ī	Crushed	d/Crimped			Burrs		Instructions Incomplete/Unclear		Unclear	Part Lost/Missing Wrong Stock Pu		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance		Part Moved		
ľ	Heat Tr	eat			Countersink		Mislabe	eled		Positioned V	Vrong	
ľ	Inspect	ion Strip in	Tube		Cut Too Short		Misread	d		Power Loss/	Surge	Other
ľ	<b>—</b> i ·	in Bend			Drill Holes		Offset					
ľ		Waves in I	Extrusio	n	Drawing	Г	Out of	Calibration				
<u> </u>	<del></del> 1 '	Sequence			Finish		Out of	Sequence				
Ī	Wave/Twist in Tube Folio				Outside	Dimensions						

DQA: \_\_\_\_\_ Date: \_\_\_

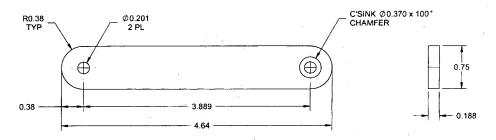
H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

97494 pl 13-02-21



D

С



### D4093-5 BRACKET

NOTES:
1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-226/8 (OR AMS 4117/4128/4115/4116)
OR ASTM B211 OR ASTM B221
OR 6061-T6/T62 ALUMINUM SHEET
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209
REF DART SPEC. M6061T6B/M6061T6S
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.06 ibs

DESIGN	RF	DART AEROSPACE USA, INC.					
DRAWN	RF	KENT, WA					
CHECKED	<b>\$</b>	DRAWING NO.	REV. D				
MFG. APPR.	A.	D4093	SHEET 5 OF 5				
APPROVED	d.	TITLE	SCALE				
DE APPR.		BRACKET	NTS				
DATE 12.0	9.18	COPYRIGHT © 2010 BY DAR THIS DOCUMENT IS PROVATE AND COMPRENTIAL AND IS NOT TO BE USED FOR ANY PURPOSE OR COMPLOOR CO	SUPPLIED ON THE EXPRESS CONDITION THAT IT IS MINUNICATED TO ANY OTHER PERSON WITHOUT				

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NICD.	Voc	/ No
NCR:	Yes /	' No

DQA: \_\_\_\_\_Date:

NCR: Y	es / No				WORK ORDER NON-C	ONFOR	VIANCE / UP	DAIE	QA Closed:	Date	:	
Work Order: DISPOSITION							AGAINST DEPARTMENT/PROCESS					
Part No.					Rework Scrap	i 1	Skid-tube Crosstube  Machining Small Fab		Water Jet Prod. Eng. Coor.		Engineering Quality	
NCR N	0				Use-as-is Work Order Update	Thermoforming Finishing Rec/Store/Packaging Supplier Supplier				Other		
Root				Descri	ption of work order update	Initial	Act	tion	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator	_											
Material					•							
Setup	_											
Other												
Process						ļ						
Supplier		ļ										
Training	_											
Unapproved		<u> </u>	11	<del> </del>						<u> </u>		
· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·	AULT CATE	GORY				· · · · · ·	
Landin F	ig Gear			_	General	П <sub>с</sub> .		_	۱	Г-	7/5	
}	Bending				Bend	$\vdash$	Grain		Ovalized	<u> </u>	Pressure/Forced	
}	Centre No	ot Conce	ntric to (	<sup>D/S</sup>  -	BOM/Route	$\vdash$	Hardware		Over/Under	<b>⊢</b>	Temperature/Cure	
-	Cracks		Broken/Damaged	<b>—</b>	tion Incomplete	. –	Part Incorrect		Weld			
-	Crushed/Crimped.		Burrs	Instructions Incomplete/Unclear  Maintenance		Unclear	Part Lost/Missing Wrong Stock Pulled		wrong Stock Pulled			
}	Contamination			<b></b>			Part Moved	<b>A</b> ( , , , , , , , , , , , , , , , , , ,				
}	Heat Trea			_	Countersink	Mislab		<u> </u>	Positioned Wrong		704	
-	Inspectio		Tube	<u> </u>	Cut Too Short	Misrea	a		Power Loss,	Surge	Other	
-	Ripples ir			 	Drill Holes	Offset						
	Torque W			\	Drawing	<del></del>	Calibration					
-	Turning S			$\vdash$	Finish	$\vdash$	Sequence		-			
Wave/Twist in Tube				1	lFolio	I  Outsid	e Dimensions	-				